

Behria Foundation College Sanghar (Campus)
Class 10 – Computer Science
Teacher: Sir Jahangir Hassan
Summer Vacation Work & Assessment Syllabus
(Session 2026)

Assessment Syllabus

Unit 1: Problem Solving and Algorithm Designing

1.1 Problem Solving

- What is Problem
- Plan the Solution of Problem
- Solving Strategies
- Problem Solving Process
- Define the Problem
- Alternative Solutions
- Evaluate and Select an Alternative
- Implement and Follow Up on the Solution

1.2 Algorithm

- Definition of Algorithm
- Role of Algorithm in Problem Solving
- Qualities of Good Algorithm
- Algorithm Examples

1.3 Flow Chart

- Definition of Flow Chart
- Flowchart Symbols
- Flowchart for Solving Problems

1.4 Data Structure

- Linear and Non-Linear Data Structure
- Stack
- Queue
- Graph
- Array
- Memory Location of Array
- Types of Graph
- Tree

Unit 2: Basics Programming of C++

- Introduction to C++
- Definition of Programming
- Features of C++
- Dev C++ Introduction
- Basic Structure of C++ Program
- Header Files
- Input and Output Statements
- Variables and Data Types
- Operators
- Simple Programs in C++

Summer Vacation Work Instructions

- Complete all work neatly in notebook
- Use blue and black pens only
- Draw flowcharts with pencil and ruler
- Submit after summer vacation
- Learn definitions and practice diagrams regularly

Unit 1 Activities

- Definitions: Problem Solving, Algorithm, Flowchart, Data Structure, Stack, Queue, Array, Tree, Graph
- Five qualities of good algorithm
- Steps of problem solving process
- Differences: Linear vs Non-Linear, Stack vs Queue
- Draw flowcharts and diagrams

Unit 2 Activities

- Definitions: C++, Variable, Data Type, Operator, Compiler
- Features of C++ and Dev C++ purpose
- Structure of C++ program
- Practice simple programs (name, add, subtract, multiply, divide)

Important Note

Students must complete all work honestly and revise regularly for tests.

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